

International Inflating

For more than 40 years we have studied the relationship between changes in the total of purchasing media (demand deposits plus currency outstanding, or the "money supply") and changes in the general level of prices. Our work led us to what we believe is a scientifically warranted assertion, as follows: If the amount of purchasing media issued was in excess of the amount of monetary gold and the gold-exchange value of things offered in the markets (inflating had occurred), buyers had more to spend than was needed to clear the markets at an unchanged general level of prices. In trying to use the excess purchasing media, buyers were willing to bid more for the things available. One result was an increase in the general level of prices.

During much of the past quarter century, most economists focused on other relationships in their search for the "cause" of generally rising prices, which is popularly called "inflation." Among the alleged "causes" of this phenomenon that received widespread acceptance were (1) monopoly pricing practices of large firms in "concentrated" industries, (2) temporary excess aggregate demand associated with an alleged inherent instability of market economies (so-called "demand-pull inflation"), and (3) monopoly pricing practices of large unions that enabled them to obtain unjustified wage increases ("cost-push inflation").

That the general level of prices had increased at many times and in many circumstances throughout history in which these alleged "causes" were not present suggested to us that none of them was a common aspect fostering the phenomenon. U.S. policy-makers, however, devoted much attention to them in their attempts to stop or to slow the rise in prices. Such attempts, which included anti-trust actions, "jaw-boning," wage-price controls, and other efforts, were unsuccessful. Increases in the U.S. money supply accelerated during the mid-1960's, and soon thereafter so did increases in the general level of prices. In the United States as well as in other countries, a connection between large rates of increase in the money supply and in prices became widely recognized.

Prior to the 1970's, few economists were concerned about generally rising prices in all the major Western countries. From time to time prices had increased rapidly in some countries, but this had not occurred in all major Western nations during peacetime until early in the 1970's.

Long ago we had predicted that this problem would arise. Our prediction was based on the relationship described earlier between the creation of excess purchasing media and generally rising prices within a country. We concluded that the same relationship would apply to the entire world.

Although we lacked the data necessary for estimating the magnitude of worldwide inflating, that a large amount of excess purchasing media had been created in the world was evident. For many years, most countries created substantial amounts of purchasing media, not in relation to gold and the gold-exchange value of other things being offered in their markets, but in relation to the foreign-exchange component (mostly U.S. dollars) of their international monetary reserves. Consequently, large amounts of excess purchasing media were available to effect transactions within such countries, and rapidly rising prices could be expected to result from this development.

The Bretton Woods agreement of 1944, which resulted in creation of the IMF (International Monetary Fund), involved arrangements that were a blueprint for worldwide inflating.¹ This agreement embraced the universal use of the gold-exchange standard, which had fostered worldwide inflating during the 1920's. The gold-exchange standard involved the use by countries of currencies of other countries as national monetary reserves against which they created excess purchasing media. For this reason, we have referred to the IMF as an "engine of inflating" since shortly after its inception.

Few other economists agreed with our assessment of the functioning of the IMF. Staunch defenders of the usefulness of that organization were many. Among them were IMF staff economists, who produced many studies purportedly demonstrating that the IMF contributed to international economic stability and growth.

A Recent Analysis

Now that new IMF arrangements have superseded the original agreements, a staff economist of the IMF has published a paper revealing the role played by the IMF in the worldwide surge of prices during recent years. Mr. Robert Heller, Chief of the Financial Studies Division of the IMF's Research Department, presented an analysis of the relationship among international reserves, the world money supply,

¹These arrangements began to fall apart when the "two-tier" market for gold was implemented on March 17, 1968. A primary aspect of the arrangements (convertibility for foreign official holders of U.S. dollar claims into gold at the rate of \$35 per ounce) was ended on August 15, 1971 when President Nixon ordered the Treasury to end such convertibility. Nevertheless, U.S. fiat dollars continued to be used as monetary reserves by foreign nations, and still are so used. The original IMF arrangements were ended officially last January, when "new" international monetary arrangements were announced. (See *Research Reports* for February 2 and 9, 1976.)

and world consumer prices in the March 1976 issue of the IMF's journal called *Staff Papers*.²

Mr. Heller began his study with the conjecture that, in general, "changes in global international reserves have a direct and an indirect impact on the world money supply, and these changes in the world money supply in turn influence the worldwide rate of inflation." Furthermore, he conjectured that "the recent increase in international reserves helped to precipitate a worldwide monetary expansion that was an important causal factor in the worldwide inflation of the early 1970's."

To test his first conjecture (that there is a relationship between international reserves, world money supply, and world consumer prices), Mr. Heller used modern statistical techniques to measure the correlation between changes in pairs of those series during the years 1951 through 1974. He found the correlations to be significant. Moreover, he concluded from his statistical tests that "the direction of causation is indeed from reserve changes to price changes rather than the other way round." His study indicated that the average lag between changes in total international reserves and the resulting change in world money stock was about 1 year. He estimated the average lag between changes in the latter and changes in the world price level to be about 1.5 years. However, substantial variability occurred among the durations of the lags for individual episodes.

Mr. Heller then focused on the large increases in international reserves, the world money supply, and world consumer prices during the 1970-74 period. The accompanying chart shows that international monetary reserves denominated in U.S. dollars increased about 18 percent during 1970, about 41 percent during 1971, and about 21 percent during 1972. (See the accompanying table for the components of such reserves.) Note that the world money supply increased about 13 percent during 1971, about 15 percent during 1972, and about 13 percent during 1973. World consumer prices increased about 9.5 percent during 1973 and about 15 percent during 1974. Mr. Heller reported that there was sufficient statistical evidence to assert that large increases in international reserves during 1970, 1971, and 1972 were both a direct and an indirect cause of the large increases in consumer prices during 1973 and 1974. Moreover, the evidence indicated that this relationship occurred through the intermediary of increases in the world money supply.

These assertions do not imply that increases in international reserves then were the only factor accounting for increases in the world money supply during subsequent years. According to Mr. Heller, "changes in international reserves can account for only slightly more than half of the observed variations in the world money stock." Other factors that might have accounted for changes in the world money stock include changes in domestic monetary policy and changes in the private sector's preferences for asset holdings.

²Throughout his article, Mr. Heller used the term "money supply" to refer to demand deposits plus currency outstanding (what we call purchasing media and others call "M₁"). He used the term "inflation" to refer to increases in the general level of prices. Mr. Heller provided data showing that the bulk of international reserves comprises the monetary reserves of all countries.

CHANGES IN INTERNATIONAL MONETARY RESERVES (Billions of SDRs)

Component	1970	1971	1972	1970-72
Gold	-1.9	-1.1	-0.3	-3.3
SDRs	+3.1	+2.8	+2.8	+8.7
Reserve position in IMF	+1.0	-1.3	0	-0.3
Exchange rate changes	0	-4.4	0	-4.4
Foreign exchange holdings	+12.2	+33.8	+21.0	+67.0
U.S. dollar holdings	+13.3	+28.2	+17.5	+59.0

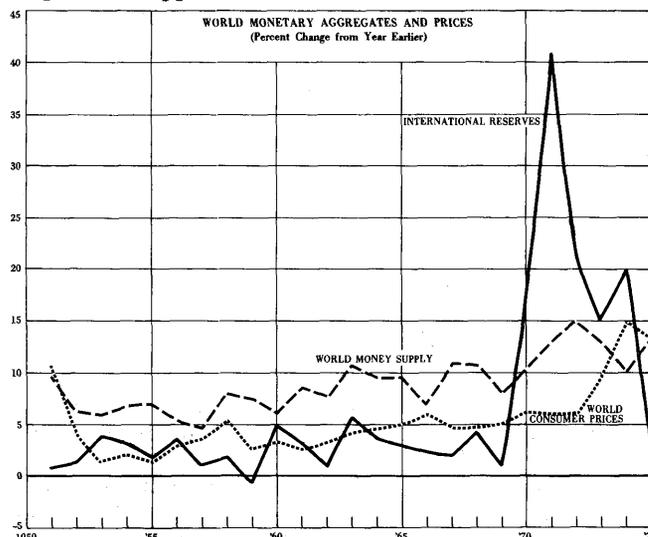
Components of International Monetary Reserves

If, as Mr. Heller's study suggests, increases in international reserves have resulted in increases in world prices, then identifying the sources of the large increases in international reserves during the 1970-72 period would seem useful. The accompanying table shows the change in the various components of international monetary reserves during the years 1970-72 and the total change during those 3 years.

Note that during the 3-year period, the increase in SDRs was nearly offset by the sum of the decreases in gold, the reserve positions in the IMF, and valuation adjustments related to changes in exchange rates among currencies. Increases in total international reserves during that period were attributable almost entirely to increases in official foreign-exchange holdings then. Furthermore, increases in official holdings of U.S. dollars accounted for 88 percent of the increase in foreign-exchange holdings. Therefore, the large increases in the dollar component of international reserves probably were a major factor accounting for the rapid increases in world consumer prices that occurred during 1973-75.

Conclusion

Mr. Heller concluded his paper by suggesting that what is needed is "a better control over international liquidity creation, so that the aggregate volume of international reserves may be expanded in such a manner as will . . . avoid economic stagnation and deflation as well as excess demand and inflation in the world." The implication appeared to be that the "control" should be



Note: Changes in the world money supply and world consumer prices were calculated by the author from indexes representing those series developed by the IMF. These indexes were weighted by the 1970 gross domestic products of each country valued in U.S. dollars.

conclusion # 2

exercised by some international organization (such as the IMF).

Throughout recorded history government and monetary authorities have yielded to pressure by politicians to provide them with spending money by running the "printing press" (inflating). We know of no reason to expect that this long-established practice soon will be ended. Indeed, Mr. Heller's account of the prevalence of this practice all over the world during recent years confirms the evidence of history.

Given this penchant of politicians to inflate and the absence of any institutional constraint such as the gold standard, what might prevent or restrict the practice? We concluded long ago that an informed electorate is the only practicable means of restraining politicians in office from unsound practices.³ Adequately educating a majority of the electorate is neither practicable nor necessary. A relatively small but informed minority could make their desire for sound practices known to the politicians in office. The latter would do the bidding of such a minority or soon be turned out of office.

A primary purpose of this Institute is to educate the public (including that all-important minority of the electorate) in fundamental economic relationships. When this minority has acquired such education, it can effectively demand that politicians avoid unsound economic practices. We believe that only then will inflating be stopped.

STATISTICAL INDICATORS

No additional data were received for any of the primary leading, roughly coincident, or lagging indicators of business-cycle changes. The percentages of these groups appraised as expanding cyclically remain at 75, 100, and 67, respectively.

The apparent cyclical expansion of three-quarters of the primary leading indicators suggests that general business activity will continue to expand during the next few months.

SUPPLY

INDUSTRIAL PRODUCTION

Production of steel, automobiles, and electric power (1) in the 1- and 4-week periods ended on the indicated dates in the current year and (2) in the corresponding periods of earlier years was as follows:

Steel	1929	1932	1973	1974	1975	1976
Ingot (million tons)						
1 week: June 19	1.32	0.26	2.93	2.84	2.05	2.66
4 weeks: June 19	5.29	1.19	11.81	11.41	8.35	10.79
Automobiles						
Vehicles (thousands)						
1 week: June 19	101	45	217	153	150	197p
4 weeks: June 19	389	170	832	650	571	746p
Electric Power						
Kilowatt-hours (billions)						
1 week: June 19	1.7	1.4	38.7	38.2	39.1	41.5
4 weeks: June 19	6.7	5.7	144.0	146.6	146.3	153.6

Percent change from 4 weeks a year earlier: +5.0

p Preliminary.

DEMAND

RETAIL SALES

Estimates of retail sales during the most recent week and 4 weeks compare with such sales during the corresponding periods a year earlier as follows:

Period	Percent change
Week ended June 18	+ 13
Four weeks ended June 18	+ 12

³For a discussion of this, see pp. 53-55 of our *Economic Education Bulletin* of May 1969 (Vol. IX, No. 4) entitled "Can Our Republic Survive?"

BUSINESS

EMPLOYMENT AND UNEMPLOYMENT

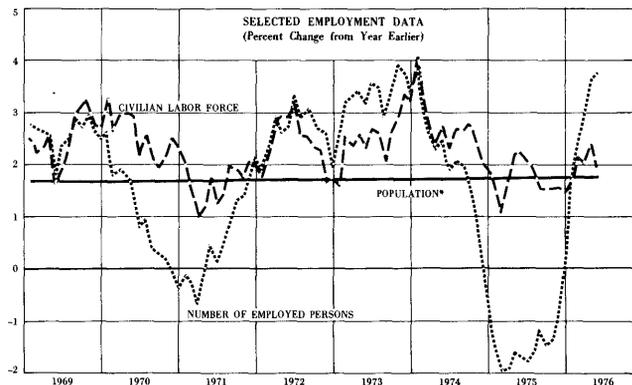
The BLS (Bureau of Labor Statistics) recently released data indicating that employment conditions from the point of view of employees continued to improve during May. Increases in the number of persons on nonfarm payrolls, the total number of persons employed, the average workweek, and overtime hours of production workers in manufacturing indicated improved employment conditions then. Decreases in the total unemployment rate, the number of unemployed persons, and the average duration of unemployment also indicated improved conditions during May.

The monthly survey of households conducted by the BLS revealed that the number of employed persons increased 308,000 to a record 87,697,000 during May. This number was 3.2 million, or 3.8 percent, more than the number employed a year earlier. The number of unemployed persons (defined by the BLS as persons who told interviewers that they had sought but not found employment during the survey period) decreased 180,000 to 6,860,000 during May. These changes resulted in an increase of 128,000 persons in the civilian labor force to 94,557,000 persons during May. This number was 1.9 percent more than that a year earlier.

The number of unemployed persons as a percentage of the civilian labor force (the total unemployment rate) decreased 0.2 percentage points during May to 7.3 percent. A year earlier the unemployment rate was 8.9 percent, which is the postwar record. The substantial decrease in the unemployment rate during the 12 months ended in May reflected a relatively large increase in the number of employed persons and a relatively small increase in the civilian labor force.

The accompanying chart shows the percent change from a year earlier in the civilian labor force, the number of employed persons, and the working-age population during recent years. Note that the cyclical trends in the first two curves just mentioned have been similar. The roughly parallel upward trends of these curves during some periods suggest that improved employment conditions encouraged some persons to join the civilian labor force then. Conversely, the roughly parallel downward trends during other periods suggest that the opposite occurred then.

The civilian labor force as a proportion of the working-age population is called the participation rate. During May this rate was a record 60.7 percent. Two noncyclical factors that have resulted in increases in the participation rate during recent years were an increase in the number of women and teenagers seeking employment and a reduction in the number of armed forces



*Noninstitutional population ages 16 and over.

SELECTED EMPLOYMENT DATA

Series	1975	1976	
	May	April	May
Number of Persons on Nonfarm Payrolls*	76,510	78,942r	78,999p
No. of Unemployed Persons*	8,250	7,040	6,860
Average Workweek for Production			
Workers in Manufacturing	39.0	39.4r	40.3
Average Overtime Hours in Mfg.	2.4	2.5	3.3
Unemployment Rates			
All Civilian Workers	8.9	7.5	7.3
Adult Men	7.2	5.4	5.6
Adult Women	8.4	7.3	6.8
Teenagers	20.3	19.2	18.5
Married Men	5.7	3.9	4.0
White Persons	8.3	6.7	6.6
Nonwhite Persons	14.2	13.0	12.2
Avg. duration of Unemployment†	13.3	15.7	15.0

Note: All data are seasonally adjusted.

*In thousands. p Preliminary. r Revised. †Weeks.

personnel (from 3.6 million persons in 1968 to 2.1 million recently). Further substantial demobilization seems improbable; therefore, changes in the number of persons in the armed forces probably will affect the participation rate little in the near future. However, the apparent correlation between the cyclical trends in changes in the civilian labor force and the number of employed persons suggests that the participation rate might continue to increase during the next few months. If it does, decreases in the total unemployment rate might be small even if employment conditions continue to improve then.

Of the persons reported as unemployed during May, about one-half, or 3.4 million, had lost their last jobs. Of the remainder, about 900,000 had quit their last jobs, about 800,000 were looking for their first jobs, and about 1.8 million had re-entered the labor force. A year earlier, about 4.7 million persons of the total of 8.2 million unemployed had lost their last jobs, about 900,000 had quit their last jobs, about 800,000 were looking for their first jobs, and about 2.0 million had reentered the labor force.

The average duration of unemployment during May was 15.0 weeks. After reaching a peak of 17.0 weeks during December, this average duration decreased during each

subsequent month through May. The inverted average duration of unemployment is a primary lagging indicator of business-cycle changes. This series clearly was expanding cyclically through May. During that month, nearly 2.0 million persons had been seeking work for more than 15 weeks. This number was 2.1 percent of the civilian labor force then.

The total civilian employment ratio and the nonagricultural employment ratio were 56.3 percent and 54.2 percent, respectively, during May. Each of these series had increased a marked 1.1 percentage points since December. The nonagricultural employment ratio is a primary roughly coincident indicator of business-cycle changes; it clearly was expanding cyclically through May.

The number of persons on the payrolls of nonagricultural establishments increased 57,000 to a record 78,999,000 during May. That was the eleventh consecutive monthly increase in this series. This primary roughly coincident indicator also was expanding cyclically through May.

Available data suggest that employment conditions from the point of view of employees will continue to improve during the next few months.

PRICES COMMODITIES PRICES

Index	1975	1976	
	June 14	June 7	June 14
Spot-market, 22 commodities*	486	532	534
Commodity-futures	509	711	739
Steel-scrap	\$66.83	\$82.17	\$84.17

*For the preceding Tuesday.

Note: The indexes are, respectively, those of the U.S. Bureau of Labor Statistics, Dow-Jones, and *Iron Age*. The spot-market and futures indexes are converted so that their August 1939 daily averages equal 100. The steel-scrap index is a composite price for No. 1 heavy melting scrap.

PRICE OF GOLD

	1975	1976	
	June 26	June 17	June 24
Final fixing in London	\$164.00	\$125.80	\$124.50

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